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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,609	10/27/2003	Jack T. Holladay	MTIZ 2 00004	5719

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EXAMINER

HARRINGTON, ALICIA M

ART UNIT	PAPER NUMBER
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2873

MAIL DATE	DELIVERY MODE
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06/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/694,609

Applicant(s)

HOLLADAY, JACK T.

Examiner

Alicia M. Harrington

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/7/07 have been fully considered but they are not persuasive. Applicant argues the Andera et al fails to teach a linear sinusoidal pattern where the targets are oriented at 45 degrees from each other. However, figure 1 illustrates a sinusoidal pattern at 45 degrees and there is not a limitation in claim 1 that precludes the use of a linear sinusoidal pattern as applicant asserts. Applicant also argues the combination of Andera and Katsumi is hindsight. I believe applicant misread col. 8 of Katsumi. Katsumi teaches using a linear pattern in embodiments and then moving to using a circular pattern (see col. 8 of Katsumi). Therefore, Katsumi teaches incorporating a circular pattern into the visual acuity test in lieu of a linear pattern; and provides clear teaching in the reference. Thus the rejection will be repeated.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Andera et al (Patent 5216458).

Andera et al teach a set of targets for testing spatial frequency and contrast sensitivity comprising: a plurality of targets (optotypes), each of said plurality of targets including a grating of parallel aligned light and dark areas having a spatial frequency and a contrast level and each of said plurality of targets having a unique combination of spatial frequency, contrast level and grating orientation where the grating orientation is either vertical, horizontal or at an angle thereto. Andera et al further teach a spatial frequency and contrast sensitivity test where a series of optotypes (patterns) are presented (control or control the display) to a patient in order to measure both spatial frequency and contrast sensitivity. (See Col. 1, line 34-43, Col. 2, line 39-54 see figures 1-5 and Abstract). Different contrast levels and spatial frequencies are used for evaluation during the testing of visual acuity (See Col. 2, line 52-53 Col. 6 line 22-25 and Col. 5 line 54-60). Andera et al teach a method for determining visual acuity (eye dysfunction) where different angles are used by rotation of the targets (light polarizing optotypes). (See Col. 4, line 54-68 and Col. 5, line 1-22).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action: (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4,5,17-19,21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andera et al (Patent 5216458) in view of Katsumi et al (Patent 5054908) and further in view of Sarver (Patent 6926408).

Andera et al teach an eye test including a plurality of optotypes (targets) for testing spatial frequency and contrast sensitivity but does not expressly disclose the targets are sinusoidal bull's eyes varying in a radial sinusoidal fashion. Katsumi et al discloses an eye test where a plurality of targets are bull's eye targets (See Col. 3, line 27-31 and Fig 9).

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the test of Andera et al similar to that Katsumi et al where the targets are bull's eye targets so that desired movements of the eyes can be obtained as the eye changes focus moving from one point to another. However, Andera et al and Katsumi et al failed to disclose an eye test where a plurality of patterns (targets) are sinusoidal targets varying in a radial sinusoidal fashion.

Sarver discloses an eye test where a plurality of patterns (targets) are sinusoidal targets varying in a radial sinusoidal fashion (See Col. 1, line 57-59 and Col. 2, line 51-58 and figures 5 and 6). 17. It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the targets (optotypes) of Andera et al as modified by Katsumi et al similar to that of Sarver where the targets are sinusoidal

bull's eye targets varying in a radial sinusoidal fashion to provide better measurement test patterns for optical evaluation.

Regarding claim 21-22, see figure 9 of Katsumi. The sinusoid being rotated around a peak or valley changes whether a light or dark region is at the central point and would have been an obvious to one of ordinary skill in the art, since it has been held that where the general conditions are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

6. Claims 6-11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andera et al in view of Katsumi et al. 19. Andera et al teach an eye test including a plurality of optotypes (targets) for testing spatial frequency and contrast sensitivity and also where the optotypes could be letters (See Col. 1, line 46-56, different letters are known to be used in the art for testing visual acuity) but does not expressly disclose the targets are a plurality sinusoidal optotypes targets ("optotype embodiments") comprising constructed strokes. Katsumi et al disclose an eye test including a plurality of optotypes (targets) (See Col. 3, line 27-31) comprised of sinusoidal targets in which different features of strokes are used for measuring visual acuity. (See Figures 2-7 and fig 9 for constructed strokes).

It would have been an obvious matter of design choice to one having ordinary skill in the art at the time invention was made to modify the targets of Andera et al similar to that Katsumi et al where a plurality of optotypes (targets) are comprised of sinusoidal

targets in which different features of strokes are used for measuring visual acuity to provide better measurement test patterns for optical evaluations.

Applicant has not disclosed that "a width equal $1/2$ a fundamental single sinusoidal period and a length that is a multiple of the width" and the use of "fundamental sinusoidal optotypes" provide an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the combination of Andera et al in view of Katsumi et al, and applicant's invention, to perform equally well with any form of sinusoidal targets used for measuring visual acuity because any form of sinusoidal targets (optotypes) would perform or yield the same function of testing visual acuity.

Therefore, it would have been prima facie obvious to modify Andera et al and Katsumi et al to obtain the invention as specified in claims 6-11 and 20 because such a modification would have been considered a mere design consideration which fails to patentably distinguish over the prior art of Andera et al and Katsumi et al.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Harrington whose telephone number is 571 272 2330. The examiner can normally be reached on Monday - Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571 272 2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Alicia M Harrington
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